

# Wildlife Habitat in Windbreaks (Supplement to Job Sheet 380)

USDA – NATURAL RESOURCES CONSERVATION SERVICE – NORTH CAROLINA



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*Photo courtesy of USDA, Natural Resources Conservation Service.*

Loblolly pine, Longleaf pine, Eastern red cedar, and, to a lesser degree, evergreen shrubs such as Wax myrtle traditionally have been used to create windbreaks in North Carolina. This vegetation will provide wind protection, but with additional plant selections and management techniques, their wildlife habitat value can be improved. Windbreaks can be developed to create valuable cover and food resources for wildlife that inhabit brushy habitats, such as bobwhite quail, bluebirds, Coopers hawk, and a variety of songbirds. Windbreaks that connect fragmented woodlots may be travelways for forest dwelling wildlife. This job sheet will help you design a functional windbreak that provides optimum wildlife habitat.

The importance of properly managed windbreaks to wildlife include:

- ◆ Increasing the availability of wildlife foods such as seeds, berries, and prey – both within the windbreak and adjacent cropland.
- ◆ Providing links between forests and field interiors, expanding the amount of useable wildlife habitat.
- ◆ Plants that retain their fruit late in the winter provide high energy foods are available to wildlife during cold weather.

## *Windbreak Establishment*

- ◆ For wildlife habitat purposes, plant a mixture of trees and shrubs that provide fruit at different times of the year. The following table indicates when seeds and fruit of some windbreak plants are available for wildlife.
- ◆ While shrubs traditionally have been planted on the outside (windward edge) of windbreaks, for wildlife habitat purposes it is also desirable to plant shrubs among the trees. This design provides a greater diversity of habitats within the windbreak.
- ◆ As with all types of wildlife corridors, greater widths are more beneficial. A desirable minimum width for wildlife habitat is three rows of trees and three rows of shrubs.
- ◆ When clearing forest land, natural windbreaks can be created by leaving bands of native trees and shrubs, and leaving rows and unburned tree roots and debris.

To get the most wildlife benefits out of a windbreak, consider the following management practices:

- ◆ Manage soil fertility with lime and fertilizer to promote rapid growth and fruit production. Dense vegetation in the windbreak provides the best buffering effect and wildlife habitat.
- ◆ Half-cutting small trees and shrubs is a technique used to create living brushpiles in the windbreak. Choose trees such as Eastern red cedar that are approximately 6-inches in diameter 4-feet up the trunk. Cut halfway through the trunk at this height so that the tree can be pushed over in a direction parallel to the windbreak - be careful not to cut completely through the trunk. Push the tree onto the ground, using the un-cut wood as a hinge. The hinge wood allows the tree to continue growing in the pushed over position.
- ◆ Develop a wildlife field border adjacent to the windbreak. The field border will provide grassy habitat that is often lacking next to windbreaks.

<b>TREES FOR WILDLIFE</b>	<b>Examples of Wildlife Benefited</b>	<b>Cultural Notes</b>
Eastern red cedar	Cedar wax-wing, robins, mockingbird	Very adaptable to moisture and light extremes. Evergreen. Fruits in summer
Flowering dogwood	Bobwhite quail, gray squirrel, bluebird	This tree grows best as an understory species in partial shade, on moist sites
Hackberry	Wild turkey, bobwhite quail, hermit thrush	Best growth on rich moist soils, fruit ripens in September and October
Mulberry	Opossum, gray squirrel, oriole	Fruit ripens in late spring
Persimmon	Raccoon, white-tailed deer, gray fox	Will grow in both moist and dry sites, fruit ripens in the autumn
Pines	Gray squirrel, bobwhite quail, pine warbler	Depending on the species, pines can grow from moist to very dry sites
Southern red oak	White-tailed deer, wild turkey, woodpecker	Will grow on well drained sites, fruit produced at 2 year intervals
Water oak	Gray squirrel, wood duck, blue jay	Prefers moist or wet soils, fruit produced at 2 year intervals
Willow oak	White-tailed deer, wood duck, chipmunk	Prefers moist soils, fruit produced at 2 year intervals

<b>Shrubs for Wildlife</b>	<b>Spacing</b>	<b>Examples of Wildlife Benefited</b>	<b>Cultural Notes</b>
Blueberry	4 – 6'	Black bear, raccoon,	Adaptable to most acidic soils with adequate drainage. Best in

		bluebird	full sun.
Chinquapin	8 – 10'	Wild turkey, gray squirrel, chipmunk	Small tree, like chestnut. Good for dry sites, full sun.
Crabapple	10 – 12'	White-tailed deer, gray fox, mockingbird	Small tree. Needs good drainage, full sun.
Elderberry	10 – 12'	Bobwhite quail, white-tailed deer, cardinal	Small tree. Likes moisture and full sun, but tolerant of shade too.
Hawthorn	10 – 15'	Wood duck, wild turkey, sparrows	Small thorny tree with crabapple-like fruit. Plant in full sun.
Hazelnut	8 – 10'	Gray squirrel, white-tailed deer, chipmunk	Large thicket forming shrub with edible nuts. Good riparian plant.
Holly (American, Inkberry, Winterberry, Yaupon, etc.- all have worth)	8 – 10'	Wild turkey, bluebird, robin	Adaptable. Evergreen and deciduous varieties. Excellent riparian plants. Shade tolerant.
Plum, Chickasaw	2 – 4'	Bobwhite quail, gray fox, blue jay	Thicket forming shrub. Good for dry sites with full sun.
Shrub Lespedeza (plants)	2 – 4'	Bobwhite quail, white-tailed deer, juncos	A.K.A., VA-70 and Bicolor. Needs good drainage & periodic mowing.
Sumac	4 – 6'	Cottontail rabbit, wild turkey, bobwhite quail	Prefers well-drained sites, full sun.
Wax Myrtle	8 – 10'	Wild turkey, bobwhite quail, towhee	Evergreen. Adaptable to wide ranges of moisture and light conditions.

Additional information is available from your local NRCS office, North Carolina Cooperative Extension Service, North Carolina Wildlife Resources Commission, and various conservation organizations.

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